

What is claimed is:

1. A method of ensuring the proper reading order of bi-directional text, comprising the steps of:

scanning a text selection for a portion of the text selection that must be rendered differently than other portions of the text selection according to text rendering rules of the language to which the text selection belongs;

marking the beginning of the portion of the text selection;

marking the end of the portion of the text selection; and

rendering the portion of the text selection differently than other portions of the text selection according to the rules of the language to which the text selection belongs.

2. The method of Claim 1, whereby the step of scanning a text selection for a portion of the text selection that must be rendered differently than other portions of the text selection according to text rendering rules of the language to which the text selection belongs, further includes the steps of:

locating a first character indicating a beginning of the portion of the text selection;  
and

locating a second character indicating an end of the portion of the text selection.

3. The method of Claim 2, whereby the portion of the text selection must be rendered in left-to-right character ordering and whereby the other portions of the text selection must be rendered in a right-to-left character ordering according to the rules of the language to which the text selection belongs.

4. The method of Claim 3, wherein the language to which the text selection belongs is Hebrew.

5. The method of Claim 2, whereby the first character is a hyphen.

6. A method of ensuring the proper reading order of bi-directional text, comprising the steps of:

scanning a text selection;

locating a hyphen character indicating a beginning of a portion of text that may need to be rendered in left-to-right reading order;

locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

determining whether the portion of text must be rendered in left-to-right reading order; and

rendering the portion of text in left-to-right reading order.

7. The method of Claim 6, whereby the step of locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, further includes the steps of:

determining whether the hyphen character is situated such that a first number is immediately adjacent to a first side of the hyphen character, and a second number character is immediately adjacent to a second side of the hyphen character; and

if a first number is immediately adjacent to a first side of the hyphen character and a second number is immediately adjacent to a second side of the hyphen character, then

marking a position of the second number indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

8. The method of Claim 6, whereby the step of locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, further includes the steps of:

determining whether the hyphen character is situated such that a number follows the hyphen character and the number is immediately adjacent to one side of the hyphen character; and

if a number does follow the hyphen character and the number is immediately adjacent to one side of the hyphen character, then

marking a position of the number indicating an end of the portion of text that may need to be rendered in left-to-right reading order.

9. The method of Claim 6, whereby the step of scanning a text selection, includes

scanning the text selection character by character.

10. The method of Claim 6, whereby the text selection is an entire document, and whereby the step of scanning a text selection, includes

scanning the entire document character by character.

11. The method of Claim 6, whereby the text selection is an entire document, and whereby the step of scanning a text selection, includes

scanning the entire document character by character.

12. The method of Claim 6, whereby the text selection is a plurality of documents, and whereby the step of scanning a text selection, includes

scanning the plurality of documents character by character.

13. A method of ensuring the proper reading order of Hebrew text, comprising the steps of:

scanning a selection of Hebrew text rendered in a right-to-left reading order;

determining whether a portion of the text must be rendered in a left-to-right reading order according to Hebrew text rendering rules;

marking the beginning of the portion of text;

marking the end of the portion of text;

reversing the reading order of the portion of text such that the portion of text is rendered in left-to-right reading order.

14. A method of ensuring the proper reading order of bi-directional text, comprising the steps of:

scanning a text selection;

locating a hyphen character indicating a beginning of a portion of text that may need to be rendered in left-to-right reading order;

marking a position of the hyphen character;

determining whether the hyphen character is situated such that a first number is immediately adjacent to a first side of the hyphen character and a second number character is immediately adjacent to a second side of the hyphen character;

if a first number is immediately adjacent to a first side of the hyphen character and a second number is immediately adjacent to a second side of the hyphen character, then

marking a position of the second number indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

determining whether the portion of text that may need to be rendered in left-to-right reading order must be rendered in left-to-right reading order; and

rendering the portion of text in left-to-right reading order such that the order of the portion is the second number, followed by the hyphen character, and followed by the first number.

15. A method of ensuring the proper reading order of bi-directional text, comprising the steps of:

scanning a text selection;

locating a hyphen character indicating a beginning of a portion of text that may need to be rendered in left-to-right reading order;

marking a position of the hyphen character;

determining whether the hyphen character is situated such that a number follows the hyphen character and the number is immediately adjacent to one side of the hyphen character;

if a number does follow the hyphen character and the number is immediately adjacent to one side of the hyphen character, then

marking a position of the number indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

determining whether the portion of text that may need to be rendered in left-to-right reading order must be rendered in left-to-right reading order; and

rendering the portion of text in left-to-right reading order such that the order of the portion is the number followed by the hyphen character.

16. A computer readable medium having stored thereon computer-executable instructions which when executed by a computer perform the steps of:

scanning a text selection;

locating a hyphen character indicating a beginning of a portion of text that may need to be rendered in left-to-right reading order;

locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

determining whether the portion of text must be rendered in left-to-right reading order; and

rendering the portion of text in left-to-right reading order.

17. The medium of Claim 16, whereby the step of locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, includes the steps of:

determining whether the hyphen character is situated such that a first number is immediately adjacent to a first side of the hyphen character and a second number character is immediately adjacent to a second side of the hyphen character;

if a first number is immediately adjacent to a first side of the hyphen character and a second number is immediately adjacent to a second side of the hyphen character, then

marking a position of the second number indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

18. The medium of Claim 16, whereby the step of locating a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, includes the steps of:

determining whether the hyphen character is situated such that a number follows the hyphen character and the number is immediately adjacent to one side of the hyphen character;

if a number does follow the hyphen character and the number is immediately adjacent to one side of the hyphen character, then

marking a position of the number indicating an end of the portion of text that may need to be rendered in left-to-right reading order.

19. A system for ensuring the proper reading order of bi-directional text, comprising a computer program module operative:

to scan a text selection;

to locate a hyphen character indicating a beginning of a portion of text that may need to be rendered in left-to-right reading order;

to locate a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

to determine whether the portion of text must be rendered in left-to-right reading order; and

to render the portion of text in left-to-right reading order.

20. The system of Claim 19, whereby the computer program module is operative to locate a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, and is further operative:

to determine whether the hyphen character is situated such that a first number is immediately adjacent to a first side of the hyphen character and a second number character is immediately adjacent to a second side of the hyphen character;

if a first number is immediately adjacent to a first side of the hyphen character and a second number is immediately adjacent to a second side of the hyphen character, then

to mark a position of the second number indicating an end of the portion of text that may need to be rendered in left-to-right reading order;

21. The system of Claim 19, whereby the computer program module is operative to locate a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, and is further operative:

to determine whether the hyphen character is situated such that a number follows the hyphen character and the number is immediately adjacent to one side of the hyphen character;

if a number does follow the hyphen character and the number is immediately adjacent to one side of the hyphen character, then

to mark a position of the number indicating an end of the portion of text that may need to be rendered in left-to-right reading order.

21. The system of Claim 19, whereby the computer program module is operative to locate a second character indicating an end of the portion of text that may need to be rendered in left-to-right reading order, and is further operative: